

OBSERVATIONS
ON
THE MINERAL WATERS
OF HOMBURG.



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THIRD EDITION, REVISED.

"I know no remedy that does not owe its success
solely to its having been seasonably employed."
"Non semper ægris prodesse, semper sanis nocere."

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Twelve years' extensive practice in the use of mineral waters will,
it is hoped, be regarded as the strongest recommendation of this
little work to the confidence of the reader.

LOUISEN-STRASSE,

May, 1853.

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CHAPTER FIRST.

The Waters—The Badbrunnen—Inutility of the Bath during a Ferro-saline Course—Instances in which Baths may be Useful—The Ludwigsbrunnen, or Sauerwasser—The Elizabethanbrunnen—Advantages at Homburg for Bottling the Waters—Medicinal Properties of the Elizabethan—The Kaiserbrunnen—Fallacy of Judging of the Medicinal Effects of any Water from its Chemical Composition—Medicinal Properties of the Kaiser—Its Constitutional Effects—The Stahlbrunnen—Its Medicinal Properties—The Operation of the Homburg Waters on the Skin and Kidneys—Advantages of Combining the Waters.

IN the valley, within five minutes' walk of the city of Homburg, are five distinct mineral sources, each differing from the other in its effect on the patient, in a manner far more marked than could be anticipated from

the perusal of any analytical tables ; but, of these five, three only are deserving of any lengthened remark.

Baths of the Badbrunnen are prescribed during the internal administration of one or more of the other waters, but in my practice I have never once, during the treatment of any patient, found it necessary to recommend their use, for there is no fact of which I am more fully convinced, than that of the inadmissibility of these stimulating warm baths simultaneous with a course of ferro-saline waters.

Unbiassed observation cannot fail to perceive that, heretofore, the use of the bath has attracted too much of that praise which ought to have been unreservedly and entirely bestowed on the internal administration of the waters ; and that, in many cases, the warm external application has had a tendency to diminish, if not pervert, the remedial capability of a ferro-saline course. Even when the seat of disease is in the skin, I have never met with a case that has required the use of the bath while going through a course of the waters, with a prescribed regimen ; and, in the treatment of gout and chronic rheumatism, however apparently well-adapted the bath may at first appear, I must confess that to me it is doubtful whether its unaided effects could en-

title it to be considered even as a palliative resource. However, I intend in another chapter to set forth more clearly the disadvantages of uniting the bath with these waters.

On the other hand, in pure local rigidity of the joints, topical warm baths of the Badbrunnen are occasionally useful, and have proved beneficial when other remedies have failed; but, in diseases accompanied with preternaturally harsh and dry skin, I have found it necessary to prescribe two or three *common* warm baths of rather high temperature, to relax it and produce a degree of moisture on the surface, previous to the commencement of the course. Caution, however, is required when employing even this simple adjunct.

In some rare cases of chronic hepatic diseases, and when the passage of gall-stones produces much pain, the "Aqua Regia" bath may be resorted to, both to assuage the pain and to assist in overcoming the disease.

I have selected the subjoined analytical tables of the Homburg waters, believing them to be the most correct; they certainly do not exhibit such flattering results as have been obtained by other no less celebrated chemists.

The analysis of the Badbrunnen was intrusted to M.

Mathias of Manheim, in 1834, who, from 16 fluid ounces, at a temperature of 52° Fahr., obtained the following:—

Ingredients.					Grains.
Muriate of Soda	...	...	...	...	108,392
„ Lime	...	...	...	...	15,285
„ Magnesia	...	...	...	...	5,904
„ Potash	...	...	...	...	0,384
Sulphate of Lime	...	...	...	...	0,212
Carbonate of Lime	...	...	...	...	9,698
„ Magnesia	...	...	...	...	2,485
„ Iron	...	...	...	...	0,480
Bromate of Magnesia	...	...	...	...	0,002
Silica	...	...	...	...	0,164
Alumina	...	...	...	...	0,054

Spec. Grav., 1,012.

Carb. acid gas, 22 cub. inc.

The Ludwigsbrunnen, or Sauerwasser, was submitted to MM. Will and Fresenius. The results of their inquiries are as under, from 16 fluid ounces, at a temperature of 51° Fahr. :—

Ingredients.					Grains.
Muriate of Soda	...	...	...	...	84,461
„ Potash	...	...	...	...	2,198
„ Magnesia	...	...	...	...	6,002
„ Lime	...	...	...	...	9,506
Sulphate of ditto	...	...	...	...	0,226
Carbonate of ditto	...	...	...	...	9,796
„ Magnesia	...	...	...	...	0,046

Ingredients.				Grains.
Carbonate of Iron	...	...	...	0,390
Silica	...	...	...	0,123
Free Carbonic Acid	...	...	...	18,427

Spec. Grav.

Carbonic acid gas, $22\frac{1}{2}$ cub. inc.

From this source flowed formerly a very palatable and refreshing beverage, which, though containing much carbonic acid gas, either in a free or combined state, was innoxious ; but, in 1843, from some cause not sufficiently explained, this water, having acquired a larger portion of iron, lost its negative and gustative qualities. From the retention of its carbonic acid gas, it is still, *pro tanto*, considered by many a refreshing, though not agreeable, drink ; and I believe it has been, and still is, sometimes vended as a substitute for the far-famed Seltzer water.

I have rarely had occasion to recommend the water of the Ludwigsbrunnen, except at the commencement, when attending a nervous or excitable patient, or one much weakened by age, or by any previous disease ; and, indeed, in all cases where the patient is unable to give a somewhat minute account of his former habits and ailments, I have judged it prudent, by the administration of this water, to feel my way, before beginning the regular course of the stronger waters. I have been thus better

enabled to form a correct opinion of the probable benefits, that might result from their systematic use; for it is arrogant and presumptuous in any practitioner to pretend to prognosticate, from a first interview, the effect that any mineral water may have on the constitution. This course of proceeding, also, tends to habituate the system to the locality, and gives time to the patient to accommodate himself to the novel state of domestic arrangements.

The three following waters, viz.: the Elizabethan, the Kaiser, and the Stahlbrunnen, were analysed by M. Liebig, professor of chemistry at the university of Gies-sen, whose name is become justly celebrated in England not only for his great research, but more especially by his writings on those branches of the science relating to animal chemistry and agriculture.

The Elizabethan source was submitted to him in 1836, since when it has not undergone the least perceptible change. His table, however, but imperfectly represents the medicinal qualities of the spring; and were we permitted to judge of its components from the effect the whole produces on disease, we might be pardoned for thinking that the iodine this water contains is deserving of a more tangible representative than the indefinite *traces* in the following column. The following is the re-

sult, from 16 fluid ounces of water, at a temperature of $51\frac{1}{2}^{\circ}$ Fahr. :—

Ingredients.				Grains.
Muriate of Soda	...	...	...	79,1547
„ Magnesia	...	...	...	7,7670
„ Lime	...	...	...	7,7568
Carbonate of ditto	...	...	...	10,9824
„ Magnesia	...	...	...	2,0111
„ Iron	...	...	...	0,4608
Sulphate of Soda	...	...	...	0,3809
Pure Silica	...	...	...	0,3157
Iodine	...	...	...	traces.

Carbon. acid gas, $48\frac{1}{2}$ cub. inc.

The learned Professor, who has probably analysed a greater variety of mineral waters than any other chemist, has published, “that it would be difficult in all Germany to find a spring as rich in efficient ingredients as the Elizabethan.” This statement was, however, made in 1836, before that great lion of German ferro-saline sources, the Kaiserbrunnen, was discovered.

I profit by this opportunity to thank Dr. Velton, of Aix-la-Chapelle, for reminding me of the omission, in a previous edition of this fact, which is now doubly valuable, being corroborated by his own experience, with respect to those patients he has recommended to our Spa.

The superiority of the Homburg mineral waters in general is recognized by all the medical faculty of the university of Bonn, and one of their greatest advantages is, that their temperature and strength is scarcely, if at all, influenced by the heat and drought of summer, or the wet and cold of winter. A dose can therefore at all times be regulated with precision; and were it not absolutely imperative that, during a course, the invalid should benefit by a genial atmosphere, and carefully guard against every risk of taking cold, even for some time after it is completed, there is no reason why January should not be as fitting a season for the Kurzeit as July; but it will hereafter be more particularly my duty to point out the danger that would certainly attend the perversion of the common usage in this respect.

As an occasional and simple purgative, the Homburg waters may at all seasons be profitably employed, a warm atmosphere not being required to render them duly effective; and as a medicine they are generally found to be as effectual, and far pleasanter, than any that can be compounded at home, or procured from the shops.

In many spas, where the waters are much influenced by atmospheric changes, it is expedient to profit by the fine moments to perform the various operations requisite

for their exportation to foreign parts. I believe Homburg to be the only place where ferro-saline water can be profitably bottled at any season, consequently it is not necessary to make a provision during the few summer months.

This, though not generally perceived, is a material advantage to the delicate visitor; and, to be duly estimated, both the physician and the patient should visit a less favoured spa. They ought to witness the bustling scene which immediately commences, after the few early hours that are set aside for the visitors' use, have elapsed. Then, the place is literally thronged with a busy crowd of washers, bottlers, corkers, and carriers, whose remuneration is calculated by the number of "Krug" filled and completed for exportation, and consequently every interruption to their legitimate occupation is borne very impatiently. Having once experienced this, many a timid or late patient would rather break in upon a regular course, than again be subjected to rude rebuffs by disturbing the industrious crew.

The medical properties of the Elizabethan water may be stated as purgative, diuretic, antacid, deobstruent, tonic, and excitant; it is also said to exert a peculiar influence on the respiratory, circulatory, and

nervous systems. When it is first taken, before the purgative effects are fully established, more especially if the patient be too lightly clad, or the weather cold and chilly, it acts powerfully, but teasingly, on the urinary organs, and is not unfrequently accompanied by a sensation of drowsiness, general lassitude, and discomfort; during this period the alvine evacuations are scanty, and often of a dark colour, or perfectly black. This continues for a longer or a shorter period, and is at length succeeded by the full purgative effect, when the character of the evacuation becomes somewhat similar to that produced by a large dose of blue pill, or calomel, and sometimes appears as if the effect of colchicum. On the English patient, however, the operation is not so frequent, and is attended with little or no griping. If the stomach had been previously irritable, from acidity or debility, it now becomes calm; and the morning sickness having disappeared, it is ready without inconvenience to receive the heterogeneous mass too often inconsiderately imposed upon it; and notwithstanding the copious alvine discharge, the most delicate person becomes more animated, is able to take longer walks, and generally to use more exertion than previous to the commencement of the course.

Regarding the influence the Elizabethan exerts on the respiratory system, I attribute it simply to an effort of nature, to rid the blood of the noxious carbonic acid gas which has been conveyed into the frame in combination with the water. The frequency and depth of the respirations become augmented to meet this exigency, as without this purification the blood could not pass through the heart, and would remain a deadly poison not only to ourselves but also to others: hence the accelerated respiration experienced after taking a draught in which carbonic acid gas has been concentrated. The foregoing remarks are yet still more applicable to soda water and other aerated summer drinks, because the constituents which enter into the composition of the ferro-saline waters induce the liver, &c., to share greatly in the purifying process, whereas in the water of commerce this onus is thrown entirely on the lungs.

Both the Elizabethan and the Kaiser are capable of producing the most marked benefit on those whose respiration is troubled by a too thick and scanty secretion from the trachea, or its continuous tubes, or when it is impeded by an excess of this fluid being poured out.

Whatever primary influence these waters exert on the circulatory and nervous system is, in my opinion,

entirely dependant on the iron they contain, and, with the exception of the venous portion of the circulation, is too trifling to merit observation; but when we call to mind the continued sympathetic stream that connects these two important systems with the stomach and alimentary canal, we find an excuse for any crude, exaggerated, or strange opinions, that may be entertained on the subject. Where there is any organic derangement of the heart, or large arteries, these waters, from their general stimulating qualities, when taken in the usual way, must prove very inimical to life; but in all cases where the action of the heart, and the distribution of the blood, are altered by sympathy with the deranged chylo-poietic organs, the effects of these waters when properly administered soon become evident and satisfactory; the organs are relieved and stimulated, and an improved description of blood is given to the heart, to be by it distributed more equally over the frame, while the morbid sympathy, not altogether gratuitous, is no longer called for, and consequently vanishes.

Errors of the venous system are more under the control of these agents, which form the exception to the general rule of the inadmissibility of ferro-saline waters when organic lesion has commenced, for I know no other

remedy that has deservedly obtained so much praise for relieving varicose ulcers and a varicose state of the veins as these waters. The evacuation they produce diminishes the tension of the vessels, and the iron, as before stated, equalises the circulation and gives tone to their coats.

The Kaiserbrunnen, as has been already stated, was analysed by Professor Liebig in 1842, and from 16 ounces, at a temperature of 52° Fahr., he states the following to be the result:—

Ingredients.	Grains.
Muriate of Soda	117,00480
„ Potash	0,29952
„ Magnesia	7,86432
„ Lime	13,32480
Carbon. of Lime	11,10528
„ Iron	0,80640
Sulph. of Lime	0,12100
„ Silica	0,33792
Free Carbon. Acid	25,45920
Carbon. acid gas, 55 cubic inches.	

It would be impossible to adduce a more practical and convincing example of the imperfect assistance afforded by chemistry to a knowledge of the medical use of natural springs, than by witnessing the effects produced on the system by this, and the Elizabethan waters.

The great similarity between the two last analytical

tables has led to the conclusion that the only difference in the medicinal effects of these waters is that the one holds in solution a larger quantity of the ingredients than the other, so that the difference that exists is thought to depend rather on the quantity than the quality. This theoretical inference cannot well be avoided by those who place implicit confidence in these tables.

Were it so, nothing could be easier than by graduating the doses, augmenting one or diminishing the other, to produce similar results from either water; but it would be impossible, by the most cunning ingenuity, to effect, by the use of the Elizabethan water, that almost specific action on the skin and glandular system which is the province of the Kaiser, and which is, doubtless, effected through the medium of the sulphur which this water certainly contains. This ingredient, however, appears to have eluded the detection of that almost unerring chymist, Professor Liebig, though its presence is evident to the taste; and moreover, I have seen it manifested on the silver coin patients may have happened to carry about them during a course of this water.

In the high ground which bounds the sources is plenti-

fully found a substance known as "Braunkohlen" (or Lignite); it is well charred wood, but scarcely, if at all, bituminised: it ignites readily, gives out a fierce heat, and is very tenacious of fire. This would be an almost inestimable blessing to the poor in a country where fuel is expensive and scarce; but unfortunately it so abounds in sulphur in a combined as well as in an almost free state, that it can be rarely used. This coal is also combined with many of the other substances found in the saline waters, but the predominant salts are those of alum. I have made this remark to show that sulphur is plentiful in the neighbourhood.

The mere chemical composition of a mineral water is but an illusive guide to its therapeutic use. Chemistry can reveal only the grosser and tangible ingredients; the more subtle elements and properties of the fluid often escape altogether the cognizance of the scales and tubes of the analyst: yet the medicinal value of a mineral water often depends upon the identical qualities which the science of the chemist fails to appreciate. It is as absurd to judge of the active properties of a mineral water by the results of its chemical analysis, as it would be to attempt to determine the powers of the living organization by the dissection of the dead body. Che-

mistry is useful, so far as it arranges the different waters under one of the six following artificial groups, viz. :—

1. Sulphureous.
2. Chalybeate.
3. Alkaline.
4. Gaseous.
5. Saline.
6. Bromo-ioduret.

Other evidence that the Homburg waters exert an efficacy independent and above that which may be procured from their chemical composition, is furnished by the fact, that although they retain their purgative qualities when drunk from the "Krug," yet their specific action upon the animal economy is diminished in a ratio with the length of time that has elapsed since they were taken from the source. "Not only is it probable that, under such circumstances, some of their ingredients have entered into new compounds, but that others to which they especially owe their constitutional efficacy have been entirely lost. I have been led to believe that their constituent elements undergo a change, from observing that when those waters are drunk from the "Krug," they have, in some instances, exhibited more active purgative qualities than when taken at the spa; but this, is

as I have already observed, not their most important and essential action. Except, therefore, with relation to their use as purgatives, these waters should be drank fresh from the source, if the patients desire to have the full benefit which they are qualified to afford.

The Kaiser water is best adapted to the ailments of the greater mass of invalids who come from England to seek relief at the German spas. It is more easily digested, and does not produce that sense of weight or uneasiness in the stomach experienced while taking most other waters of this class. Its operation is quicker, and more copious; and the sense of lightness and hilarity consequently produced is pronounced to be most delightful.

That the difference of the purgative effect, common to both these waters, does not altogether depend on the preponderance of ingredients is, in my opinion, proved by the fact, that after the Kaiser water has been reduced by the commixture of warm water to a strength apparently lower than that of the Elizabethan, it will often act even when an increased dose of the Elizabethan proves inert.

This compound of the Kaiser and warm water is with me a very favourite mode of exhibition, and the mixture is to most tastes rather agreeable, while a similar combination with the Elizabethan would be at

once nauseous and inefficient. This emollient addition is useful in many morbid conditions, but when these conditions do not exist, it is assuredly better to take the water undiluted.

The Kaiser water is said by Murray, in his "Hand-book," to be similar to the Carlsbad; but this statement is not strictly correct, as regards the effects of the two waters. A long experience has convinced me that the water of the Kaiser spring exerts a more salutary and permanent influence over the constitution than that of Carlsbad; and that, in this respect, it is an agent of peculiar efficacy. The obvious and immediate results of its operation are not those only for which it deserves confidence; there are more remote advantages to be derived from its use, which a lengthened and complete observation alone enables us to appreciate.

A course of the Kaiser water, in addition to its operation as a tonic, exercises an alterative power, and is particularly valuable as a deobstruent in the removal of glandular complaints, in increasing the vigour of the capillary circulation, purifying and enriching the quality of the blood, and restoring to the system that elasticity which has been lost by a prolonged indulgence in habits of dissipation.

That feeling of exhaustion and *ennui* following late hours, the fatigues, and the excesses of fashionable life, and resulting from the depression of the system, kept too long in a state of tension, is removable by a course of these waters. The shattered health of those also who have long resided in a hot climate, and who suffer from perverted function of the liver, is recruited by their steady and judicious employment. Their efficacy, indeed, in promoting a healthy secretion from all the glandular organs, is one of their most remarkable properties.

It is a singular circumstance that German physicians do not seem adequately to appreciate the valuable qualities of the Kaiser water; however, they are duly estimated by the English physicians, many of whom are in the habit of sending patients to Homburg, with a recommendation to me to submit them to a course of the Kaiser water as soon as possible; they judging of its value by experience of its good effects on their patients in previous years. I am persuaded that the Kaiser source will rise in repute as the knowledge of its utility extends. It is not a water that can be used indiscriminately, for, being the most powerful in its constitutional action of all the Homburg waters, suitable precaution and judgment should be observed in its exhi-

bition. There are certain conditions of the system that forbid its use, as we shall hereafter have occasion to point out; but it is unnecessary at present to dilate upon these exceptional instances.

Much that has been already said, when treating of the medicinal properties and uses of the Elizabethan, is also applicable to the Kaiser; indeed it would be little else than a recapitulation were I again to enter into the detail: but I trust I have sufficiently pointed out the real difference that exists between the two, and have proved that the one cannot be beneficially substituted for the other. I believe the Kaiserbrunnen to be the last source of this class that has been discovered.

The Stahlbrunnen alone now remains to be noticed; and, as I cannot reconcile it to my conscience to treat it with marked disrespect, I must inflict upon my readers the perusal of another analytical table:—

From 16 oz. of the water at a temperature of 52° Fahr.

Ingredients.	Grains.
Muriate of Soda	79,86432
„ Lime	10,66752
„ Magnesia	5,32992
„ Potash	0,17664
Carbonate of Lime	7,53408
„ Iron	0,93696
Sulphate of Lime	0,14592

Ingredients.	Grains.
Sulphate of Silica	0,31488
Free Carbonic Acid	21,26592
Carbonic acid gas, 32 cubic inches.	

The water yielded by this spring is said to be as useful and powerful as any chalybeate in Germany. For my part, I have hitherto had but few occasions to recommend it uncombined, and in all those cases it certainly has fulfilled every indication. In combination, however, with one or both of the preceding waters, I have frequently found it efficacious. The facility this water so readily offers to *increase* the chalybeate properties of the ferro-saline, is, in itself, sufficient to give this spa a better standing than almost any other.

But cases frequently occur, and those chiefly among young females, where the addition of even a slight aperient before the cure is established, within a few hours often knocks down all the benefits the patient may have derived from three weeks' or a month's assiduous devotion to this source.

The following quotation, translated from a work written by the great Sydenham, in the year 1681, applies so aptly to the Homburg waters of the present day that I cannot refrain from inserting it:—

“Neither is it my custom, while the ‘sick woman’ is

taking chalybeates, to exhibit any cathartic at stated intervals; since the power of steel seems to me to be hindered and broken in upon, as well in the hysterical as in the hypochondriacal kind of affections, by a cathartic.

“ If it should be a matter of triumph to me to have restored the order of the animal spirits, to have renewed their proper consistency, and to have strengthened them, how should I like any unseasonable interloper, by the exhibition of even the mildest cathartic, again to knock down in a single day that which I had hardly set up in eight; and thus undermine my own superstructure, and pulling down what I had built up, mock my patients and lose my labour.

“ Which custom, when it obtains also in the use of those mineral waters which partake of steel, undoubtedly renders them less operative. I am well aware that some have been cured by cathartics, not only occasionally accompanying, but even when taken every day with steel, which, however, rather proves the energetic virtue of steel than the wisdom of the physician, since, had these been omitted, the cure would have been effected in less time,” &c.

Excepting the great stress laid by our author in attributing diseases to a “disordered or attenuated state of the animal spirits,” which was the learned jargon of

his day, it being then as little understood as it is now little believed in, the correctness of the foregoing passage must be subscribed to by all medical men who have had sufficient experience in the exhibition of the Homburg waters. But, at some spas of this class, where the waters hold, either positively or relatively, in comparison with the accompanying saline or purgative ingredients, a larger proportion of iron, it is necessary for the attendant to be ever on the watch, otherwise he will be unable to ward off the dangers that would alike threaten the existence of the plethoric or the spare habit, the old or the young.

At our spa, however, as I have before remarked, the saline purgative salts are found to be more abundant than at any other; while, judging from the effects, the iron is contributed in just that proportion requisite to sustain the strength and to give tone to the organs. Without the iron, the debility that must be produced by the continued use of the purgative salts would soon be evident in proving the strength of the strongest and best grown man.

The use of these waters may be continued even by the most delicate and feeble, and certainly the fear of debility ought to be their most remote dread.

All the waters of our spa act, in the first instance,

by neutralising acidity in the stomach, and increasing the tone of this organ. That unpleasant sensation called heartburn, frequently experienced by delicate stomachs after taking even the lightest food, is relieved by these waters as it is by taking the ordinary alkalies; but there is this advantage in favour of the waters, that by being received into the system they invigorate the coats of the stomach, and remove the heartburn altogether, while the benefit derived from alkalies is, at most, only temporary and palliative. I may as well observe here, that heartburn is not wholly dependant on acidity, but may be produced equally by its opposite—alkalies. The secondary action of these waters upon the skin and kidneys is also of the highest importance. These two secreting organs, by carrying off the waste materials of the system, are the chief purifiers of the blood, and any arrest or diminution of their functions is invariably followed by considerable constitutional disorder. The elements thus retained act as a poison to the blood, tend to great disturbance of the action of other organs, and enfeeble the tone and vigour of the nervous system, inducing thus a variety of anomalous and painful affections.

One of the chief advantages of these waters is the facility with which they admit of combinations to suit

special cases. By mixing them in various proportions, effects may be produced that cannot be obtained by the exhibition of either of the waters alone, and this advantage is, I believe, peculiar to Homburg. I have had recourse to this plan for many years, and have been well satisfied with the results. The mode and proportion in which the waters should be combined, depend, of course, upon the circumstances of each case, and can not be comprised in any theoretical formula.

Besides the advantages derivable from a combination of the Homburg waters, I have found that, by the addition to them of the Adelaide ioduretted water, the efficacy of the iodine they already contain has been greatly increased, in the treatment of obstinate glandular and uterine affections. This method of combining different waters supplies us, in truth, with *new therapeutic agents*, and augments our power over disease a hundred-fold.

I have already shown that it is almost impossible to predict, from the bare chemical analysis of a spa, what is its actual operation on the constitution in cases of disease, a change of a trifling nature in the proportion of the components being sufficient to modify, in an unexpected degree, the action of the water. How extensively, then, may the new agencies over disease be multiplied

by the judicious combination of these waters ! My experience verifies this obvious inference ; and I have long felt that I have become possessed of new remedial agents, by studying how to combine the several waters to meet the requirements of each special case.

Notwithstanding this great superiority of the Hom-burg waters, it is incumbent on the medical adviser to be ever watchful over the symptoms that present themselves during the course, many of which may be anticipated ; but some frequently appear quite unlooked for, and, to avert or neutralise them is almost the sole business of the “ Spa Physician.” It may be relied on, that he will be the most successful who is enabled to do this by imparting confidence to the patient, and, as *studiously* as *possible*, abstaining from the use of other evacuants ; all of which, some in a greater, some in a lesser degree, mar the intentions of the course.

Still he must be a rapacious and grasping, rather than a benevolent, physician, who would frequently withdraw himself whole nights and days from the reach of those with whom he has entered into a compact to conduct them through this critical period ; such bold and reckless practice must result from ignorance, and not from a just knowledge of, or a well-founded confidence in, the remedies. ∴

CHAPTER. SECOND.

Description of Homburg—The city and its site—The sources—
The promenades—The climate—The exemption of Homburg
from febrile diseases—Efficacy of the waters in cases of venous
congestion—Consumption.

HAVING remarked on the different effects of the waters, it is necessary I should now allude to their topography, and, at the same time, notice other matters connected with Homburg which may influence or interest the invalid. All the sources are found in a spacious garden to the S.E. of the city; they can scarcely be said to be in a valley, but they are a little lower than the town. The garden is intersected by two streams, one of which pursues its natural course, while the other is conducted to it by a communication from the valley, by means of a tunnel passing under the Frankfort road.

The soil of this garden is, perhaps, the poorest to be found in the neighbourhood; but the grounds are taste-

fully laid out, and we are indebted to the care and attention of M. Mauch, the head gardener, for the thriving shrubs and gay flowers they contain. In the busy morning hours they are enlivened by a good band of music. The MM. Blanc, during the autumn of 1844, erected a spacious orangery near the Elizabethan source, the dimensions of which are 200 feet by 30 ; this is also used as a promenade, and, when the weather is wet or chilly, this boon cannot fail to be appreciated by the water-drinker.

The city of Homburg is situated on an eminence, and is partly bounded by the Taunus mountains, which form a segment of a circle extending from N. E. to W. It is thus in a great measure screened from the angry winds coming from those points. The town itself is effectually drained, and the authorities pay great attention to the removal of all nuisances from the streets. The soil of the surrounding parts is composed of a rich and deep loam, resting upon a thick substratum of gravel, through which the rain immediately percolates, and thus the surface soon becomes dry even after a long continuance of wet. Fogs are extremely rare at all seasons.

The following table shows, at a glance, the increasing

popularity and fashion of this spa. The number of visitors was, in

1834	155
1836	294
1839	830
1842	1,820
1843	2,700

And in 1852 the number of visitors from all nations exceeded 8,000.

This extraordinary increase of visitors has necessitated the erection of a great number of elegant hotels and dwelling-houses.

The present Landgrave is the youngest brother of Frederic Joseph, whose wife was Elizabeth, second daughter of George III. She was an extremely estimable woman, visiting the haunts of misery and distress, administering to the wants of the sick and the needy, and performing all those charitable duties which lend a grace to power. She was not only distinguished for these moral excellencies; for she was instrumental in beautifying the town, in laying out public walks and gardens; and had she and her husband survived she would have carried out extensive plans—which are still extant, to attest her public spirit and intelligence—for the improvement of the town and neighbourhood. Anxious for the

welfare of the humbler classes committed to her rule, she established Infant Schools, and in other modes promoted their good.

With the practical good sense of an Englishwoman, she foresaw that Homburg would eventually become an important place ; but, like all her fair countrywomen, she had a strong antipathy to " play." She believed that the prosperity of the town might be promoted without such extrinsic attractions ; but could she have foreseen how little the English visitors are allured by these enticements, she might not have felt so strong an aversion to the practice. I feel assured that this assertion will be corroborated by those English medical gentlemen who have recommended patients to this spa.

The present Landgrave, who has served gallantly in the Austrian army, is still single, and at his death this ancient line will become extinct. The inhabitants are wont to say, that " there never was a bad prince of Homburg," and the present Landgrave has, equally with his progenitors, engaged the affections of his subjects. Many deputations of the citizens have besought him to marry, that his family may be perpetuated, but he has continued deaf to their solicitations.

The Landgrave's religion is " Lutherish ;" that of

the majority of the people is "Reformerish." This little state has ever been foremost in promoting the advancement of knowledge and civilisation, having been among the earliest and firmest friends of Luther, and equally energetic in rescuing Galileo from impending danger.

The promenades in the more immediate vicinity of the town of Homburg, are the gardens of the chateau and of the Kursaal, and the grounds leading to and surrounding the mineral springs. The first of these are well laid out and their being, as it were, within the town, offers great accommodation to those who are unable or unwilling to take a longer walk. Access to them is open to all, and at all hours. During the residence of the Princess Elizabeth she occupied herself much in directing the arrangements of these gardens, and her good taste, combined with a somewhat extensive knowledge of botany, has made them an interesting and most agreeable promenade.

The gardens of the Kursaal are connected with the building, and of course are most easily accessible. Under the direction and care of an enlightened head-gardener, they have been beautifully laid out in the English style, and the inducements which well-arranged and highly

ornamented walks offer for a promenade, are delightfully enhanced by the attendance of a numerous and excellent band of musicians, who perform daily for some hours during the whole season, from May to October.

The mineral springs are distant from the town about five hundred or six hundred yards, but the approaches to them being throughout a continued garden, this distance is scarcely perceptible in traversing it, and the attention is unconsciously allured by the admiration of a perpetual succession of agreeable objects. In all the promenades here enumerated, banks, chairs, rustic arbours, and seats, are distributed in great numbers, so that no apprehension of fatigue need interfere to lessen the pleasure of the walk; but we advise those who have recently taken the water not to be induced to take a seat immediately afterwards, lest they should experience a chill. A carriage road through a charming avenue leads also to the springs.

The climate of Homburg is, in the strictest sense of the word, *bracing*; the heat of the summer has not that debilitating effect so much complained of in lower situations, and in the immediate neighbourhood of the sources the atmosphere will be found *mechanically* combined with saline particles, which, however, in a sanitary point of view, I believe to be inert.

To the strong and vigorous, and to those who are free from any particular lesions, Homburg offers many inducements for a residence, it being frequently exempt from fevers when they are raging in the nearest towns and villages; but in cases where the mucous or serous membranes are affected by slight and rapid variations of the temperature, Homburg, and indeed most parts of Germany should be avoided except during the summer months.

I have met with cases of asthma and dyspnœa which have been benefitted by living in this atmosphere, but these are rare, and no man could foretel such a result. All cases of congestive diseases would certainly be aggravated; but fortunately the curative properties of the waters, when carefully taken, overcome this unfriendly influence. This efficacy of the waters is more especially felt when the congestion is venous.

During the hot months, the mornings and evenings are comparatively *cold*. This freshness is agreeable to many, but those who have a tendency to local inflammatory attacks ought to be careful, when exposing themselves to these changes, to provide themselves with warm but light clothing. I strongly recommend even the most robust of my countrymen, when travelling in Germany,

and more especially when living in towns situated on the banks of a river, or in any low situation, never to sleep with the window open even during the hottest weather; for independent of the cold, which at some period of the night is sure to follow, the early morning air is loaded with damps not yet dissipated by the heat of the sun, which should always be avoided. This caution, however, is not so requisite to be observed by the Homburg visitor, as by those of all the other spas in the Rhine district.

It is evident that, to the really phthisical patient, neither the climate, the domestic comforts, nor the waters of Homburg can promise the least relief; but, in the treatment of those cases of deranged abdominal viscera which so nearly assume the appearance of consumption, much hope may be held out, and much good expected, from a visit to this spa. Every competent person must concede that, in the ostentatiously published cases of consumption, said to have been cured by the German spas, the lungs must be acquitted of having been tuberculous in any stage; and it is the incumbent duty of every medical man to point out the danger of giving too ready credence to the happy results set forth in the reports of cases, manifestly written to catch the eye of the public. The old observer of nature feels, when read-

ing them, that he is not on his ancient ground, or rather that his ancient ground has been metamorphosed into something new:

“And starts—for truth is wanting there.”

CHAPTER THIRD.

Diet and Regimen — Beverages — Directions for the course —
Clothing—Injuriousness of bathing during the course—Sleep
—Exercise.

BEFORE proceeding to enumerate the various kinds of diseases to the relief of which the Homburg waters are applicable, it will be profitable to devote a few pages to their indispensable auxiliaries.

A medical sect flourished for some time among the ancients, which held the opinion that all diseases might be cured by the same things which were used daily by the parties when in health, but changed, according to the condition of the body, and accommodated to the nature of the disease. The education of the athletes in the gymnasia gave ample opportunity for judging what influence diet and a given mode of living would have on the human body. Of such importance has the subject been ever held, that there is not an age from which we have not received numberless codes of regimen for the cure

and prevention of disease. Most of these are excellent, having been dictated by extensive observation and sound judgment; while others are, apparently, regulated by caprice or fancy. The care, however, devoted to them proves the importance in which the subject has been held. Although modern practitioners have better understood and relied more upon the use of medicines, yet they have never overlooked the advantage of a suitable diet, but have considered it as a powerful auxiliary if not an effectual means of cure.

The fact is, that all directions, to be rational, must be founded on the previous and anticipated circumstances of the individual to whom they are offered, and even then they cannot be considered valid until they have been confirmed by his particular experience.

The visitor expects in books of this description to find a general outline for his guidance, and an attempt is usually made to gratify his wishes ; yet no undertaking can be more difficult, for, even when writing on Cheltenham, Harrowgate, or any other English spa, where we are surrounded by customs suitable to our tastes, and by a mode of living which has become almost necessary to our existence from early and continued use, numerous special considerations interfere to frustrate our object.

There are few cases in which the medical attendant has not some prejudice to contend with, or some preconceived but futile objections to overcome, when giving a dietetic system to a patient; and it is really an advantage of no small moment when he is able to suggest a constant change, adapted to the case, that will not increase the symptoms of the disease, induce any new disorder, nor impede the curative process of his remedies. It is also important that the diet should be agreeable to the invalid, or the probability is that the physician's orders will be badly observed, if not quite disregarded; for it certainly as frequently happens that the intention of the visit is frustrated, and the repute of the water injured, by too much laxity in attending to the prescribed regimen, as by the rules themselves being insisted on with too much rigour.

The English physician on the continent has, therefore, to contend with a difficulty which is altogether unknown to his brethren at home,—that of modifying the effects produced, and reconciling the stranger to the complicated process employed in the continental kitchens to give new and elaborate forms to the productions of nature. Without stopping here to inquire which is the more rational mode of cookery, I may venture to assert

that the continental plan greatly retards the recovery of the English dyspeptic and other sufferers.

It is seldom necessary to advise a low diet while taking these waters; this is most fortunate, as a few days' doses generally recall the lost appetite and render it extremely keen. It would be then vain for the medical attendant to impose any restriction on the quantity; he must rather turn his attention to the quality, and regulate the proper hours for the meals.

Breakfast may be taken at any convenient hour,—indeed it is better that there should be no fixed time for it; when taken, it ought to consist principally of fluids, such as tea or coffee, according to previous habits or tastes, any simple grain boiled in milk, plain milk, or milk and water. Either of these will be found convenient and suitable for this meal, and, after a few days' attendance at the sources, even pure milk will generally agree well and sit easily on the stomach, though previously it may have caused disquietude or illness.

The salt contained in the waters produces thirst, which, however, soon passes off; but, while it lasts, it is difficult to abstain from drinking, and I have found that tepid milk, either pure or diluted, with a modicum of bread, assuages this thirst, and forms a very suitable

breakfast. This meal is not usually a substantial one, lest it should interfere with the hour of *one*, which ought to be the time selected for dinner. When this early dinner hour is much opposed to the habits of the patient, it should be adopted with caution; for, how desirable soever a sudden transition from evil to good may be regarded, as an ethical proposition, we often find inconvenience attending the rapid accomplishment of physical change. The dinner should be composed of simple, wholesome, plain-dressed food, such as is adapted to most persons at most seasons. It is not necessary to enjoin abstinence from the dishes usually found on a well-regulated dinner-table, and nearly such a dinner may generally, with a little patience and self-denial, be selected from the profuse and fantastical *table d'hôte*, and with less difficulty be chosen from a bill of fare, which can be always procured for inspection when required.

The liberal supply of venison and game from the neighbouring woods, offers to the invalid a useful and pleasing variety. The flesh of all animals in their wild and native state is less difficult of digestion, and, being more animalized, is therefore more easily assimilated than that of the domesticated.

One of the effects of the finely dissolved common salt contained in the water, and which I have already instanced as tending to produce a degree of thirst, also is, to excite the salivary glands situated about the mouth, thus causing them to pour forth such an abundance of their fluid, to unite with the aliments during mastication, that these enter the stomach in nearly a chymous state. This organ is thus relieved of some of its important duties, at a time, also, when it is rendered equal to almost any labour by the iron in the water acting upon its coats, and, indeed, upon the whole system.

Though this increased tone of the stomach enables it to modify, it does not empower it to overcome, all the pernicious effects of bad ingesta. It is, therefore evident that, when dictating the dietetic rules, our attention must be directed rather to the ultimate results than to the proximate question of digestibility; and, as the dinner must, and ought to be the principal if not the only real meal, it is important to be particularly careful to select those viands which tend to produce the finest chyle, and reject such as are greasy and have a tendency to become rancid, or those that are sharp and quickly become acid in the stomach: while, at the same time, this meal should consist of a due proportion of vegetable

and animal substance. Water, or brandy or sherry diluted with water, ought generally to be preferred as a dinner drink to the wines of this country in common use, or to those of France, all of which are apt to affect both the stomach and the kidneys, and cause restless and sleepless nights to those individuals unaccustomed to them. There is also no good reason why beer should not have the preference to either; and if good sound English table beer could be obtained, it certainly would be a valuable acquisition to the German table.

It may be observed that, generally, the water drawn from the conduits situated highest in the town is the best for drinking; but there is an exception to this, for, enclosed within the balustrade that encircles the Stahlbrunnen, and within three yards of it, is a well, which sends forth a constant clear stream of the most delightful water, which is duly appreciated by the inhabitants, many of whom use no other at table. After much rain this well frequently overflows, and for a time dilutes the water of the Stahlbrunnen; however, this soon passes off, and causes but little inconvenience.

When the course is taken simply as a purgative, and for no particular complaint, the water should be drunk when the stomach has been some time at rest. It is

then as in many other cases advisable that all food taken after dinner should be of the lightest description, indeed nothing more substantial than tea or coffee, and bread and butter; and luckily the water drinker seldom feels a desire to indulge in anything more satisfying or stimulating.

One of the consequences of most purgative medicines is to produce a cold or chilly sensation during and after their operation, and notwithstanding the stimulating ingredients contained in these waters this sensation is frequently experienced. This in itself would be of little importance; still, to obtain the due effect of the waters, every part of the system should be in a state to encourage rather than repel their action: and as they appear to possess an almost elective principle, in finding out and acting on the diseased organ or system of organs, any interference tending to upset this equilibrium will be obviously as injurious as uncalled for. Consequently our attention must be directed to the end, that we may retain or establish that equality of mind and body so absolutely essential when we wish to ensure all the sanitary effects these waters are capable of yielding. With this view the clothing must be varied to meet the changes of the morning temperature, and must never be

so warm and cumbersome as to excite perspiration or produce fatigue, nor so light and flimsy as to check the sudorific action of the waters, and to throw them too forcibly on, or to divert them from, the internal organs.

I have observed with pain that parents, when attending the spring, have permitted, and even urged, their children to drink the water, unconscious of the injury they might cause. The constitution of children is too excitable for the stimulus of these waters, and I cannot conceive any malady to which they may be subject that would not be more appropriately relieved by the ordinary pharmaceutical preparations. I wish it to be understood that this observation is intended to apply solely to the children of English parents, who have been brought up on the regimen usually observed at home.

Many patients experience more or less disposition to sleep, after taking the waters in the morning. This desire may be attributed, in some degree, to the iron they contain; but still more to the unusually early hour of rising, to the excitement of the music, the gay assemblage, and also to the freshness of the morning breezes. It is generally advisable to gratify, but not to induce this desire to sleep, and a nap of half an hour, after the return from the wells, will most commonly be found sufficient.

This will often be a subject for the attention of the physician, from which he will be able to form a prognostic of the probable results of the course.

The necessity of exercise, according to the strength and regulated by the disease of the patient when under a course, must be obvious to every thinking person, and the physician seldom fails to recommend its being taken in the open air. But the fascinations of the promenade, fiddlers, clamorous horns, and kettle-drums; the active gaiety, the ribbons, wreaths, and Sunday vests, which, on every side surround the stranger, form a much stronger inducement to take sufficient exercise than all the dogmas that were ever promulgated by the sages or impressed by the faculty. To these attractions, both the medical attendant and the celebrity of the waters are, unquestionably, much indebted; for wise as may be the prescriptions, and precious as may be the waters, exercise beyond doubt, is the grand cause of both of these working well in their proper sphere, and as ease and liberty go hand and hand with exercise, and cause it to contribute the better to a restoration of health, so the perfect freedom enjoyed at Homburg, whether on the promenade, at the Kursaal, or the sources, ought sensibly to be appreciated. Excepting on ball nights, when the dancing

master, decorated with the insignia of his office, reigns, as it were, king of the evening, no visitor is required to bend the knee to any representative of Beau Nash, or to cringe and fawn in the presence of a lady patroness.

CHAPTER FOURTH.

Appliances of the Waters—Derangements of the Digestive Canal—
Worms, Indigestion, Constipation—Time and Mode of taking
the Waters.

It now only remains, after having somewhat minutely dilated on the various sanitary subjects connected with the waters, to offer some observations on the peculiar diseases in which they may be exhibited, with the promise of more or less advantage. From a perusal of the preceding pages it will be seen that ferro-saline waters are useful in relieving the following class of diseases alone; viz.: those that take their origin from, or are dependant on a deranged stomach or digestive system; those that proceed from general or local venous congestion of organs contained within the abdomen, or pelvis; and generally those associated with strumous habits, where constant ailing and listlessness indicate the necessity of evacuants of some sort, and when the system, though rendered impatient of most evacuations, will very

often readily and advantageously submit to a course of these waters, without experiencing that depression so frequently proceeding from the usual aperients.

It ought however to be observed, that in all cases of acute inflammation, and in certain spasmodic attacks dependant only upon the brain or spinal marrow, the application of these waters is highly objectionable ; and in cases where the circulation is constantly excited, accompanied with a hot and dry skin, and sensorial disturbance, much caution is obviously necessary in recommending their use.

The larger number of distressing ailments are either produced or continued by a deranged digestive or alimentary canal, and frequently are easily put to flight by a judicious course of the waters. This absolves the rational and experienced physician from the odious imputation of any desire to mislead the sufferer, and also from the moral offence of dealing in the marvellous ; a reputation for which has been too justly acquired by some, who unhappily, from time to time, have thought good to issue books replete with wonders, and have asserted cases of cure beyond the sphere of possibility. It is not uncharitable to suppose that, in some instances, the diseases so miraculously cured by such professors were actually

caused by their own treatment. But, while sincerely deprecating these pretensions, I willingly bear testimony to the existence of some works of considerable truth, impartiality, and skill. Such, while they prove the goodness and ability of the author, support the real value of the waters; while the first named, by detailing cases so ambiguously that it is quite impossible to know whether the patients were treated for the restoration of functional error or organic destruction, only injure the credit of the waters, and prove the venality, or at best the folly of the author.

It has already been observed, that the stomach is an organ sympathising with all, even the most remote, parts of the system. This is particularly the case with respect to the irritation caused by worms, contained either in the stomach itself, or in the upper part of the alvine canal. The difficulty of expelling these, even by the assistance of the most acrid and powerful vermifuges, has been frequently found so great that the followers of many schools, more especially those of the Linnæan, were not backward in attributing all diseases incidental to the human frame to the existence of one or other species of worm, which became more difficult of expulsion in the ratio that it was smaller in size.

So frequently are worms found to produce serious and alarming illnesses, that it has been recommended, "in all obscure diseases, attended with symptoms that are chiefly anomalous, the suspicion of the physician should be directed to intestinal worms. I once knew a case in which the patient, who was miserably afflicted with pains in various parts of the body, simulating those of arthrodynia, by taking an anthelmintic, and discharging, in consequence thereof, various fragments of a *tænia* with a mass of mucus, became perfectly well. So have I known apoplexy and palsy removed by a discharge of worms from the intestines: and had once a patient remarkable for a filthy and fungous excrescence on the nose, who lost the excrescence spontaneously after a successful course of vermifuges."*

A case occurred in my own practice, nine years ago, where the patient had been very long ailing, indeed to such an extent as to force him to relinquish his usual occupations, which, being easy, never demanded much mental or corporeal labour. This gentleman had consulted many of our most eminent practitioners, both in town and country, but, that his malady proceeded from

* "Transact of the Medico-Chir.," Vol. IX.

worms was never once suggested; and great indeed was the surprise when, within the twentieth day after taking the Kaiser water, he voided a round worm. From that time his health has been perfectly re-established.

Many instances of a similar character have since occurred to me in the course of every season, in which the results have astonished me as much as they have the patient. Individuals have sometimes consulted me who were labouring under a morbid sense of gnawing at the stomach, and an appetite sometimes voracious, at other times capricious and reluctant, with general wasting, nervous irritability, accompanied with despondency of spirits and infirmity of temper, and have assured me that their ailments have resisted all the efforts that have been made through many years to relieve their sufferings. Such a condition of the system is most pitiable, the key to which is found to be in the existence of worms in the intestines. They maintain a constant irritation, prevent healthy nutrition, and set up a low inflammatory state of the mucous membrane of the bowels, thereby entailing severe and protracted illness.

The affection of the mucous membrane induced by

these parasites is full of danger to the patient. It comes on slowly and insidiously, showing but few indications of its approach; febrile symptoms at length set in, the appetite fails, the tongue becomes coated with a slimy fur, and the mouth is dry on rising in the morning; partial chills and heats supervene at irregular intervals; the pulse is quick and weak, the abdomen is distended with flatus, and is sore and painful; the bowels act irregularly, but are generally constipated; the strength fails; and the patient feels as if he were consumed with an inward fever—sinking, wretched, and anxious. It is well for him if the affection be arrested at this stage. Sometimes, as I have already explained, the nervous centres, responding to the irritation going on in the bowels, are affected, and convulsions of an epileptic character ensue. There can be no doubt that where there is a tendency to epilepsy, or even hysteria in its various forms, an attack is often induced by the presence of worms or other irritating bodies in the alimentary canal. Troublesome palpitation, vertigo, and fainting fits, are occasionally dependant on the same cause. Many eruptive diseases, some of a very severe character, are induced by worms, in consequence of the impairment of the nutritive functions which they occasion. I have also seen cases of

that peculiar malady which Sir Benjamin Brodie has called "an hysterical affection of the joints," in which there is acute pain in those parts without swelling, redness, or any external sign of disorder—cases which were found to be due to the irritation of worms in the intestines.

Should the low inflammation of the mucous membrane adverted to continue, the patient's strength will be gradually exhausted, and there can be no hope for the sufferer. Happily the offending parasite may be removed by medicinal agents, and the disease cut short in its course. The Kaiser water is singularly beneficial in the cure of these cases. The worm is expelled in due time by its purgative action, and the low chronic inflammatory state of the internal coat of the bowels gradually yields to the salines, and the fever disappears. The restoration of health thenceforward is merely a question of time.

As these waters are capable of *dissolving* and *expelling* the excess of mucus caused by the irritation of the worms—in which *they involve* themselves, and on which, according to some, they feed—it will be seen that two very important indications to rid the system of them are fulfilled. But independent of the power of the waters so

to act upon the mucus, they possess real and powerful anthelmintic properties.

The most immediate, permanent, and beneficial effects derived from the use of these waters are found in the treatment of functional derangement of those organs essential to digestion. Let the seat of complaint be in the stomach, liver, or any other gland necessary to the proper process of digestion, or in any part of the intestinal tube, or the blood-vessels in connection, the waters are equally beneficial. In fine, they are more particularly indicated for the relief of those symptoms grouped under the generic head, "*indigestion*"; such as oppression, anxiety, pain in the stomach, nausea, and vomiting, defect of nourishment, general weakness, a dissolved state of the fluids, head-ache, vertigo, syncope, asthma, palpitation, hypochondria, gout, dropsy, a slow fever,—not unfrequently terminating fatally,—general functional derangement, diarrhoea, and constipation; all of which, together with the great discomfort attending them, are capable of being dissipated by a proper use of the Homburg waters.

Constipation is a disease that disregards all distinction of temperament, sex, or age, and an individual may continue constipated the greater part of his life

without experiencing any very great inconvenience ; however, it by far most frequently happens that this morbid state excites the whole system, the blood flows less freely through the abdominal viscera, the veins become distended, and the patient is afflicted with hæmorrhoids, and not unfrequently the pressure caused by the distended and loaded intestine produces a general varicose state of the veins of the lower extremities, ingrafting the germ of future troublesome ulcers of the legs.

A costive state may be dependent on a paralyzed condition of the muscular fibres of the intestines, and when this is the cause, and of long standing, much hope cannot be expected from the use of the waters. When it proceeds from a diseased structure of the intestines the waters are *still less* indicated ; fortunately, however, cases proceeding from these causes are comparatively very rare, and the disease more commonly results from indolence, and inattention to the admonitions of nature to relieve the bowels, by which continued neglect the fecal matter gets prematurely hard : a consequence that may also result from long continued sedentary and studious habits, or from a deficiency of the fluids exhaled by the intestinal glands, or from a diminished quantity of stimulating bile, being mixed with the chyle,

&c. A costive state proceeding from any of these last-named causes comes within the scope of these waters, and happily a removal and final cure may be almost certainly expected.

The best mode I have devised of exhibiting the waters, so as to ensure permanent relief in cases of habitual constipation, is to follow the usual plan of drinking (when fasting, or before breakfast) a sufficiency of the waters to operate briskly ; the continuance must, of course, be regulated by circumstances, but so long as the patient is able, it should be persisted in. When this course of water drinking is completed,—and three or four weeks is the time usually found sufficient,—the patient must discontinue the entire use for nine days or a fortnight, at the expiration of which period the second or alterative course should be commenced, throughout which a very different plan must be pursued, both in respect of the hour selected for drinking and the quantity of the water taken. The most convenient and best time is as soon after breakfast as the stomach can conveniently receive a glass or a glass and a-half of the water, the object being that some food may still remain in the stomach to combine with the water, and so be conveyed into the system more effectually than during the first course.

The quantity of water to be drunk daily during this second course ought not to be regulated by any sensible effect or operation it may produce, but it ought to be persisted in until admonished to discontinue by slight pains in the liver or other abdominal glands; the time demanded for this varies from three to five, or even six, weeks. I am not aware of this mode of treatment having been already suggested or adopted; but, from the the great success I have experienced, I am convinced it is the best plan of obtaining effectual relief, not only in this disease but also in many others where these waters are indicated.

It is needless to remark that, for the due effect of this treatment, the water taken from day to day should contain a similar quantity of ingredients; for it must be evident that should a great variation take place in this respect, it would be difficult, if not impossible, to regulate the dose.

CHAPTER FIFTH.

Gout—Rheumatism—Diseases of the kidneys—Head affections.

FEW diseases have through all ages attracted more attention from the faculty than gout and rheumatism. The excruciating pain which is their prominent symptom, the uncertainty of their duration, their proneness to fly to internal and vital organs, and the destruction of tissue resulting from their frequent attacks, have demanded the unwearied energy of all medical men, whose province it is to administer comfort when the blessings of health are denied to their fellow-man. How great soever the discrepancy may appear in the means resorted to for the relief of gout, there is no disease incidental to our frame the pathology of which is better understood or more generally received. Although among some members of the profession there may exist a difference of opinion on some minute points of treatment, the disease is still by all admitted to depend on the presence of an

undue proportion of lithates in the system, which are generated either by the quality of the ingesta or by its imperfect or unhealthy conversion into chyle; hence the cardinal points which the practitioner has constantly before him, when treating this disease, are to expel or neutralize the lithia, or poison, and to give tone to the stomach, so that it may more healthily perform its functions.

I believe there is no alkali, tonic, purgative, or diuretic, discovered or introduced from the earliest times to this day, that has not had a fair and patient trial, with the hope of finding in it the panacea. Hitherto the difficulty of blending medicines so as to fulfil these different indications has been so great and unsuccessful, that there is little doubt that much undeserved odium has been in consequence cast on the profession.

The equable manner in which these waters operate on all the glands and passages, without impairing or weakening the stomach, would be sufficient indication of their utility in the treatment of gout, and would inspire hope of speedy relief and impart confidence to the least sanguine; but, independent of these *visible* effects, their *unseen* or chemical operations are in no degree less useful to gouty habits or less efficient in the treatment

of all blood diseases ; consequently, when the waters are taken at the source, or within a few minutes after they are drawn, they must *not* be considered as acting unfavorably, even though they do not produce any immediate or visible effect, for even then they are doing much to counteract and subdue the disease.

Many of the foregoing remarks on gout are applicable to its kindred disease, rheumatism ; the Homburg waters are equally beneficial to both, and are *not contra-indicated* in any of their ordinary forms when the seat is *external*.

I do not wish it to be understood that I would give the preference to the use of ferro-saline purgatives in combating simple inflammation in any stage, for how great soever the similarity may appear to the careless observer between these specific diseases and simple inflammation, in reality they are widely different. Inflammation may be produced at pleasure by very slight means, while, on the other hand, it would be impossible in many constitutions to call forth a fit of the gout.

Local inflammation is not necessarily preceded by constitutional derangement, while an attack of gout seldom takes place without precursory admonitions. Cases of inflammation must undergo a number of changes, honest

and straightforward, each of which may be anticipated, and from them the duration of the disease may be foretold.

Rheumatism is characterised by vacillation, uncertainty, and indecision; its will-o'-the-wisp propensities abhor everything allied to order; it may, for example, first attack the knee, and after inflicting the most serious torment for an indefinite period, depart as unceremoniously, frequently without leaving a trace behind; or it may flicker and fly from one part to another, and at length fix itself permanently in a remote point.

Though the pathology of rheumatism is not so satisfactory nor so generally received as that of gout, yet there are few practitioners who object to attribute the remote cause of this disease to an abnormal state of the blood. This inference is deduced from the peculiarities of the disease itself and its sequelæ, rather than from any precursory or admonitory symptoms, as in gout.

It may then be readily admitted that, when treating complaints so dependent on the *blood*, those remedies ought to be preferred which possess the power to *re-generate* it, and at the same time so to improve the tone of the stomach, and the other organs connected

with it, as to ensure a *future* healthy supply of that fluid. There is scarcely a form or stage assumed by these diseases in which ferro-saline waters are not capable of producing present relief and future good. I am countenanced in this opinion by many of the Conseillers, Chevaliers, Inspectoren, and Medicinal-Rathe, who have been honoured with distinction for their professional talents and experience.

It behoves us, in those complaints where sickness of the stomach is the prominent symptom, to be convinced the irritability of the stomach is not sympathetic of diseased kidney, for should that be the case the use of these waters, though probably affording immediate apparent relief, will in the end, if persisted in, greatly exasperate the malady.

I have particularised organic lesion of the kidney, as probably the most insidious and obscure of all affections, and certainly no diseased glands are so injuriously affected by these waters. However, it must be borne in mind, that in all organic lesions total abstinence from the waters should be observed, excepting when sanctioned by a medical man, who, in justice to the waters, himself, and the patient, ought carefully to note the effects they produce, not only from day to day, but in

many cases frequently during the day; for he may be assured that the united talent and experience of the faculty could not anticipate the turn these diseases may take, when treated by a course of ferro-saline waters.

There exists in the minds of many a prejudice, as strong as it is unjust, that ferro-saline waters must have an injurious effect in all head affections,—or, as they are commonly called, “determination of blood to the head;” but as the sensations so generally referred to this cause are frequently produced by very opposite states, it is evident that the remedies required for their relief may be as various and dissimilar as the causes from which they proceed; but it is not speaking too generally when I assert, that when the malaise is dependent on sympathy with remote organs, or on capillary or venous congestion; on a plethoric habit, or on irregularity or languidness of the circulation arising from functional defects; *then* these waters are proved to be most effective agents.

In the treatment of plethoric cases, it is incumbent upon us to be unusually careful to prohibit the use of the waters in the form of baths, and also to be mindful that the *alvine discharge* is sufficiently copious. With these

precautions, even a threatened fit of apoplexy may be *temporarily*, if not *permanently*, averted by a judicious use of the Homburg waters, when prescribed and regulated by a medical man.

CHAPTER SIXTH.

Diseases of the Skin—Sympathy of the Skin with the stomach and primæ viæ—Sympathy with the uterine organs—Affections of the Skin at the climacteric ; during puberty—Redness of the face—Tetters and Vesicles—Erysipelas—Dartres—Baldness.

THE powerful influence of these waters in promoting the functions of the skin. causes them to be highly efficacious in the cure of the various forms of eruptive disorders. It is not, however, merely by their action on the surface of the body that they prove beneficial ; their agency in strengthening the digestive functions, and eliminating impurities from the blood, conduces in an eminent degree to the removal of these affections. There is no popular opinion more correct than this,—that obstinate eruptive affections are symptomatic of a bad condition of the circulating fluid, and of a general impoverishment of the system. The skin sympathises with every internal organ, but especially with the digestive apparatus. An error in the functions of the organs subsidiary to nutri-

tion, is sure to be manifested by some unhealthy condition of the integument. If the disturbance of the alimentary canal be transient, the external signs of it may be expected quickly to disappear; but when the digestive functions have been long vitiated, the blood becomes impoverished, the nervous system enfeebled, and the skin throws out an eruption of pimples, scales, and pustules, exceedingly difficult to remove.

The skin sympathises not less readily with uterine affections, any disorder of which soon reveals itself, either by a change of the complexion, or by spots and flushes, according to its nature. Thus, suppression of the menstrual flow leads to chlorosis, an affection characterised by extraordinary pallor of the complexion and darkness round the eyes, and often accompanied with pustular affections of the skin. At the critical period of life when the menses are about to leave the female, the face becomes suffused with flushes,—usually termed erysipelas,—a condition most unpleasant to the sufferer, and often resisting every means of relief. I have known many patients tormented beyond endurance by this kind of eruptive affection, and constrained to wear powder upon their face, or to bathe it with lotion during the whole day to avert the advent of the unwelcome visitor. To

such persons the heat of an ordinary sitting-room is disagreeable, the approach to a fire painful, and the least portion of food, by stimulating the digestive organs, immediately summons the flushes. I need hardly say that such affections depend upon a constitutional cause, and that no mere topical applications can be of the slightest advantage. The waters, by keeping up an action on the lower bowels, relieve the congestion of the uterus, and, through the iron which they contain, give energy to the digestive canal and invigorate the system. I know nothing else that combines so many advantages, or that practically exerts so much efficiency in these complaints. This subject is, however, dilated on at greater length under the head of uterine complaints.

We often observe that the face becomes covered with spots and blotches about the period of puberty, owing to the new functions set up in the system at that period. This is usually the time that *acne*,—which are small, hard pimples, sometimes suppurating, and having at their apices small black points,—appear on the chin and forehead, and also on the neck, of a delicate woman. These *acne* sometimes grow as large as peas, are very hard and painful, and suppurate slowly, thus disfiguring the

face, and severely trying the patience of individuals so afflicted. Many plans have been resorted to for the removal of these spots: extraction, vigorous purging, and various pomades and cosmetics, have been employed in turn, but without any permanent, or, in most cases, even transitory benefit. The reason of this is obvious; the source of the affection is constitutional, and nothing can remove the eruption that does not improve the health of the system.

A general suffused redness of the face, of more or less permanency, with a congested state of the veins of the nose, and attended frequently with a disagreeable discharge—a condition dependent on an irritable and disordered state of the stomach and *primæ viæ*, arising from various causes unnecessary to specify, may be mitigated, and if not severe and chronic, removed, by a proper administration of the Kaiser water. In these cases careful attention to diet is imperative, and a regular and systematic mode of life must be observed. Thus the waters are allowed free scope to act on the system, and the best results may be expected.

Other forms of eruption, such as are characterised by bran-like scales, tetter, and vesicles, coalescing in patches around the corners of the mouth, and behind the

ears, and other parts of the body, are amenable to the Kaiser water. I have known eruptive disorders of the most formidable kind, extending over nearly the whole of the body, attended with a constant itching and tingling, and discharging a thin ichorous fluid, that required constant care to prevent uncleanness, entirely cured by a course at Homburg. The greater part of these diseases were of an inveterate character, and had resisted every means of cure before the use of the waters was resorted to ; yet the success that has attended their administration has generally given much satisfaction. The tingling and soreness soon abates, and the discharge generally disappears. The French word *dartre* embraces a large number of eruptive complaints, most of which are benefitted at Homburg.

Incipient and premature baldness, arising from an attack of fever or other debilitating malady, from the constitutional weakness induced by nursing, and other functions incident to the sex, or from disease in the secreting glands of the hair, may be corrected, and the unpleasant results prevented by perseverance in the use of these waters. I do not say that loss of hair, occurring in obedience to the normal law of nature, can be arrested by this or any other means ;

a luxuriant vegetation cannot be expected from the autumnal oak. This is, then, one of the conditions of our humanity which we must be content to bear; but the premature loss of this decorative appendage may certainly be prevented, by improving the tone of the system and strengthening the organic functions.

It must not be forgotten that alopecia, or the loss of hair, is a local disease, dependent in the large majority of instances on constitutional causes, and therefore remediable by measures especially directed to the general improvement of the system. I have necessarily had frequent opportunities of observing the effects of the Homburg waters in these cases, and am satisfied of their efficacy.

CHAPTER SEVENTH.

The process of Digestion—Congestion of the Vena Porta—Congestion of the Pelvic Organs—Hæmorrhoids, and Affections of the Lower Bowel—Nervous Diseases—Hysteria—Consumption—Epilepsy—Paralysis—St. Vitus's Dance—Glandular Obstructions—The Waters.

BESIDES those maladies incident to irregular or obstructed action of the digestive organs previously enumerated, there are other evils of a more permanent and complex character, by which the entire machinery of digestion is disarranged. In order that the reader may clearly comprehend the nature of these cases, a few words on the relations of the organs engaged in the process of digestion may not be out of place. After the food is taken into the stomach and submitted to the action of the gastric juice, it is converted into a whitish pulpy mass, called chyme, which, passing through the pyloric orifice of the stomach, enters the duodenum and small intestines, where it is mixed with the bile and pancreatic juice, &c., and through their agency assumes the

form of chyle, the true aliment of the system, with which all the tissues of the body are built up.

Now, in order that this chyle may get into the system and fulfil its uses, it is absorbed from the coats of the intestines by two sets of vessels,—the lacteals and the veins, the latter of which are most importantly engaged in this duty. These veins ramify in large numbers over the coats of the intestines, and unite to form one large trunk, the *vena porta*, which carries the chyle, now mixed with blood, to the liver, in which organ it undergoes certain changes, fitting it for the purposes of nutrition.

Thus it will be perceived that the liver, the stomach, and the intestines, are united and indispensable parts of one system, and that the *vena porta* and its veins are the connecting link of the whole; so that, if there be any obstruction to the free circulation of the fluid in these vessels, it is obvious that every part of the digestive apparatus must suffer. If there be any mischief going on in the bowel, so as to prevent absorption of the chyle, the system cannot be nourished, and either the appetite will depart or the food will be drained off by the intestinal tube. If the liver, at the other end of the chain, be in a state of congestion, it is clear that the portal circula-

tion must be congested too; and in such a case, when this condition is protracted, the veins dilate to accommodate themselves to the larger quantity of blood they are required to hold. This is the fertile source of *hæmorrhoids*, which are nothing more than dilated intestinal veins. This affection is due therefore to a mere mechanical cause,—the pressure of blood upon the dilatable walls of a membranous tube; and the most reasonable mode of relieving it is to diminish the pressure by removing the congestion, and to increase the tone of the coats of the vessels.

Congestion of the portal circulation may be regarded as the cause of a greater variety of ailments than any other disorder of the human frame. It must necessarily interfere with the healthy action of the stomach, and produce the great variety and complication of symptoms called indigestion and gastric fever; it must also cause a turgid state of the lining coats of the alimentary canal, and lead to the generation of worms, the formation of ulcers, and low fever. *Hæmorrhoids* likewise, as we have already stated, are an inevitable result; and associated with these we almost constantly find hepatic congestion, a condition often terminating in jaundice and inflammation of the liver. The uterine organs are also

liable to the same kind of congestion that affects the lower bowel, and induces many severe and distressing complaints.

I intend to confine myself, in this chapter, to the consideration of the latter class of cases especially. Having found, in the course of my practice, that a multitude of obscure and dangerous symptoms depend upon obstructed circulation in the uterine organs and the lower bowel, I am anxious to draw attention to this particular form of complaint. Many nervous diseases are due to this cause; hysteria in its various kinds being one of the most common. Owing to their sedentary habits, women at the age of puberty, and indeed through life, are especially liable to congestion of the uterus, which induces in them lowness of spirits, nervous tremors, fits of hysteria, catalepsy, or epilepsy, and in some instances disorder of the brain and temporary lunacy. The friends of patients who are afflicted with these nervous disorders, and who show a tendency to such aberrations from a healthy mental state, should be exceedingly attentive to the condition of those organs, for the future welfare of a patient will frequently depend upon an early restoration of their functions.

A congested state of the uterus will be generally at-

tended with an undue flow of the menses, in consequence of which the sufferer quickly loses strength, and suffers loss of appetite, giddiness, pain in the back, legs, and lower part of the abdomen, and is overcome with a sense of general lassitude. Occasionally it induces an inflammatory affection of the organ, and, in that case, irregularity or entire suppression of the menses, attended with severe pain, may ensue. This is a state attended with serious symptoms, and requiring prompt attention for its relief.

Dr. Burslem has recently shown that consumption, or tuberculous disease of the lungs, is intimately connected, in its early stages, with an undue flow of the menstrual fluid. In the large majority of cases of this fatal disease, it is presumed that the constitution has become impaired by the drain on the system, consequent on the increased functional discharge from the uterus, and that tuberculous deposit in the lung has been the result. Although, therefore, the ferro-saline waters cannot avail much to cure consumption, they may be found of the highest utility in arresting a cause of physical debility, often inducing and accompanying this dangerous malady.

The medical world has been lately much divided in opinion with respect to ulceration of the uterus; but I

believe that judgment is now generally given against the doctrine of frequent ulceration of this organ. Although it may not be ulcerated, yet it is undeniable that *congestion* is a common condition, and it is to this affection should be attributed the obstinate and distressing maladies formerly referred to ulceration. It may soothe the minds of many patients, to be assured that they are not suffering from any organic lesion of this important organ, but that all their painful symptoms are due to a cause of a less formidable character.

Hæmorrhoids occasionally produce symptoms scarcely less varied and perilous. When this disease is associated with unusual delicacy of constitution, the nervous system is much shaken, and the mind becomes irritable and despondent. In women, too, it is usually associated with the affections of the uterine organs before alluded to, and a complication of painful maladies is the consequence.

In persons who are subject to hæmorrhoidal flux, the stoppage of this evacuation is a cause of much danger. The bleeding is an effort of nature to get rid of the fluid that loads the distended vessels, and, by this relief to allow the various organs of the body to perform their natural functions without hindrance or prejudice. While

this fluid is retained in the vessels the symptoms are rapidly aggravated, and an apoplectic seizure may be the result.

The congestion of the portal system does not end with the mischief done to the abdominal and pelvic viscera, but, through the circulating apparatus, entails serious consequences on the most distant organs. The head and spinal marrow principally suffer. Congestion of the veins takes place, and an impairment of sight and hearing, vertigo, partial paralysis, or an effusion of blood on the brain, often manifest the grave disturbance of the cerebral functions arising out of this cause. Attention, therefore, cannot be too earnestly called to the various contingencies of hæmorrhoidal disease.

Persons who have been long in India are extremely liable to these passive congestions, and become martyrs to their sufferings. I have frequently seen patients reduced to a wretched state of debility and dejection, in consequence of hepatic disease and abdominal venous engorgement. If the disease be of long continuance they have generally a pale, sallow complexion, and in severe cases we may observe a nervous twitching about the corners of the mouth and eyelids,—the

latter, indeed, habitually drop, as if in an incipient state of paralysis. The hands tremble, and the extremities are so cold that it is with difficulty that the feet can be kept warm, even in bed. Such persons are occasionally seized with a giddiness and a sense of tightness, either with or without pain, in the forehead ; and on such occasions, to avert the danger of falling, they seize the first solid object near at hand to support themselves. Their health appears to be quite broken up, and they seem to be on the very verge of an attack of paralysis, from which recovery could scarcely be expected. If such invalids are put under a course of the Homburg waters, taking care that their purgative action is not too great, in a few months their health may be much improved, and their strength so far restored as to enable them to walk about with ease, and to re-enter society, from which they may have been long banished.

Saint Vitus's dance, or chorea, is another of those disorders of the nervous system often due to venous congestion, and remediable by the tonic action of the ferro-saline springs of Homburg. It is needless to recount the various forms which these nervous complaints may assume ; but I may broadly state that, whenever it appears that these affections are merely functional,

which is the case in many instances, they may be relieved by the assiduous employment of these waters.

The ferro-saline properties of these springs adapt them, in an eminent degree, to the cure of all ailments of the nature of those described. The objects which the practitioner should seek to attain by his method of cure, are to relieve the venous congestion, and to give tone to the system, in which the coats of the blood-vessels will of course participate. The saline ingredients in these waters will unload gently the distended veins, and stimulate them to healthier action, while the iron will improve the tone of the digestive canal and brace the system. The venous and dark state of the blood, invariably attendant on this state of congestion, cannot be removed so effectually by any other means as by a course of these waters. Dr. Stevens has proved, by experiments, that when an animal has been poisoned by belladonna, and the blood has been converted into a black and liquid mass like treacle, the application of common salt will redden it, and cause the heart again to beat. The redness of the blood is naturally due to the iron contained in that fluid ; so that the Homburg waters supply the exact ingredients that are required to restore to the blood its healthy arterial properties.

The frequent failures in our attempts to improve the quality of the blood, or, in one word, to vitalise it by the ordinary therapeutic means, exist in the difficulty of combining the ingredients in such a manner and proportion as shall allow of their being absorbed, and of their exerting their appropriate influence on the circulating fluid; this difficulty is removed by the wonderful nicety with which the elements are arranged in these natural springs. No art of the chemist can manufacture a water comparable to the Homburg waters in their physical uses, however closely he may imitate their composition. The practitioner at the spring has also another advantage which the practitioner in a city cannot equally command—a healthy atmosphere, which is an important aid to all therapeutic appliances.

The glands, both of secretion and excretion, are, beyond all other parts of the body, injured by obstruction or congestion; and a number of ailments, some light and easily overcome, others terrible and fatal, quickly follow impeded or deranged circulation through a gland; neither are we, by any deduction from the importance or insignificance of the duties that a gland may have to perform in the healthy frame, able always to anticipate the amount of inconvenience that may result from such errors.

Many facts on record,—some attended with alarming symptoms,—exhibit the great benefit derived from the Homburg waters in these diseases; on the other hand, before a course of waters is commenced, it is important to be certain that the patient is labouring only under functional, and not under organic disease.

Medical men have long since reprobated the idea of specific medicines; such as anti-paralytic, alexi-pharmic, febrifuge, or anti-phthisic, &c., unless they can, in some measure, comprehend their nature, and the mode in which they produce their benefits.

It is not sufficient merely to know that a remedy is beneficial in certain diseases to be enabled to prescribe its use, and for this reason, I abstain from inserting the usual list of diseases in which the Homburg waters are said to be specific. I shall simply content myself with stating that, in my opinion, these waters are useful, by their saline ingredients neutralizing the acidity in the *primæ viæ*, by their purgative effects diminishing tension in particular parts, and by the iron they contain imparting tone, not only to the stomach, but also to the whole frame, and consequently equalizing the circulation of the blood in every part; but it must be borne in

mind, that it is imperative that the remedy be adapted to the *patient* as well as to the *disease*.

In concluding these observations, I beg to remark that I am not now advocating the advantages of a new remedy suddenly started into notice, nor is it one that has been often tried and as often laid aside as useless ; but *that* of which I now treat has been long under the consideration of the profession, and in use by the public ; and if its fame has at any period been tarnished, its lustre has been momentarily diminished only by the over zeal of its admirers. Notwithstanding their various vicissitudes, the innate virtues of ferro-saline waters remain the same ; and, like truth, though sometimes impeded, cannot be subverted.

CHAPTER EIGHTH.

On Baths—Hip-Baths—Entire-Baths—Shower-Baths.

IN the earlier part of this volume I cautioned the reader against the use of baths during the imbibition of a ferro-saline course, and this principle of treatment appears to me to be of so much importance, that I think it advisable to conclude this little work with some general observations and suggestions on the subject. The use of the waters themselves as a bath, during the course, should be discontinued; in the first place because they are too stimulating, and in the second place because they are strongly impregnated with sulphurous and other gases, the inhalation of which by the lungs might cause dangerous results.

Stimulating or warm applications, both general and topical, except in particular cases, must be avoided when taking ferro-saline waters. It may be further asserted that these particular cases are of very rare

occurrence, and that such treatment ought to form the exception, and not, as it often has been, the general rule at many baths. The reputation of those waters was once sacrificed by a too blind adherence to the customs of former ages, but they are now regaining their just celebrity, by discontinuing their employment for bathing, and using them only as internal remedies.

Baths of pure water may, however, under certain circumstances, be resorted to with benefit. When irritation and acute inflammation of the uterus and its appendages are present, or when the menstrual period is preceded, accompanied, or followed by pain, and the discharge is scanty, appears irregularly, or has suddenly ceased, the use of the *hip-bath* will be advantageous. When also the uterus is much congested, and there is aching and dragging in the groin and loins, with pains more or less deep-seated at the lower part of the abdomen and thighs, the bath is admissible. Obstinate constipation, accompanied with torpor of the liver, and fullness and pain in the hæmorrhoidal vessels, may also be relieved by its use. The bath, in these latter cases, may assist to induce that salutary hæmorrhage in which the relief and safety of the patient consists, and therefore, as a temporary measure, should not be neglected. In

uterine disorders, also, it is efficacious in assuaging the pain, relaxing the uterus and inducing a free and sufficient secretion of the menstrual fluid. When, however, the discharge is copious and excessive, the sufferer should refrain from the use of the warm-bath, unless under particular circumstances, of which only the medical attendant could form an opinion, as it would tend to increase the debility present in these cases by augmenting the flow of blood.

As warm-bathing relaxes the already relaxed skin, patients should be particularly careful not to expose themselves to a cold atmosphere after taking a bath, otherwise they may check the exhalation from the surface, and throw the blood back upon the internal organs, thus increasing the congestion it was the object to remove. It should also be remembered that recourse should not be had to warm-bathing immediately after dinner, or other full meal, as, by determining the blood to the skin, it would interrupt the process of digestion and induce flatulence, oppression, and pain. It would be equally improper for a delicate person to take a bath while the strength was impaired by long fasting, as the depression consequent upon it might be too severe. These general observations, however, may be qualified in particular instances.

If I find it necessary to surround my advice, with respect to the use of the hip-bath, with so many precautions, I cannot be supposed to be favourable to the indiscriminate use of the entire-bath; and indeed my experience leads me to condemn it altogether while a patient is subjected to the ferro-saline course. The large number of individuals who visit Homburg to obtain relief from its waters are delicate in constitution, and easily depressed, and it is desirable, by every appliance at our command, to invigorate rather than lower the tone of the system. The entire-bath, even if used with the utmost discretion, has the effect of relaxing the fibres; and although, in the first instance, it acts like all other stimulants in exciting the circulation, yet it afterwards decreases the nervous power; and it would be possible, therefore, in one day, to undo all the good which had been derived from a long-continued ferro-saline course. This result would painfully disappoint the expectations of the invalid, by throwing him back many weeks in the treatment.

Shower-baths are extremely useful adjuncts; but they should be employed with caution. Weak persons sometimes do not quickly re-act from the chill they cause, and internal congestion may result. If there be also

any disease of the heart, or other important organ, present, this description of bath is wholly inadmissible, as the shock might be too great for the nervous system, and the chill might be unduly protracted. The period, therefore, that elapses before the pulse rises, and the warmth returns to the surface, should be carefully observed, and if it be too prolonged, the bath should be discontinued. The danger from the use of shower-baths consists in the production of internal congestion, a risk avoided when the re-action is promptly and vigorously established, but certainly induced when it is slow, feeble, and brief.

As a general rule, therefore, we may conclude that warm-bathing is either unnecessary or injurious, in the treatment of the cases incident to the English constitution that are generally met with in Homburg. There are exceptions, however, relating chiefly to the pelvic viscera, in which hip-baths may be resorted to with advantage; but the use of even these is attended with so many possible risks, that they cannot be safely employed without the discretion and supervision of a medical practitioner. They may be either useful allies or mischievous opponents, according as they are used.





